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THE STATUS OF THE MILITARY DEPARTMENT

IN THE

LAND-GRANT COLLEGES

Orton, Edward.



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THE STATUS OF THE MILITARY DEPARTMENT IN THE LAND-GRANT COLLEGES.[1]

By EDWARD ORTON, Jr., Dean, College of Engineering, Ohio State University.

Of all the provisions made by governments or by private citizens for the education of the people, in this or any other country, in these days or those of the past, few, if any, can be compared in importance and far-reaching effect to the Morrill Act of 1862. It has brought into existence a group of institutions without a parallel in the field of higher education, either in the breadth of choice of their educational menu, their accessibility to people of all classes, or in the extent to which they are patronized.

In the Morrill Act, as in all other documents of great import, every word and phrase has been studied and its various possible significations discussed. These matters are still under a more or less spirited discussion, which must continue until, sooner or later, the general consensus of opinion crystallizes.

There is one provision in this act, however, which is not ambiguous in its meaning, but which is subject to wider differences of interpretation than any of the really debatable clauses. I refer to the words, "and including military tactics." Everybody knows just what this means. There is nothing permissive or optional about it. It means that it was intended by the framers of the law that military instruction should be an integral part of the training given by every land-grant college.

That there are very wide differences at present in the way that a military department is administered in the different land-grant colleges is unquestionable. In some the military discipline is like that at West Point, always in force, and the student lives in barracks under a strictly controlled schedule. In others the drill lasts one hour per day, but continues through five days a week for the entire four years of the college course. In most of the schools the drill is three days a week for two years, in others two days a week for two years, and in others three days a week for one year.

From this it appears that, while an equal obligation rests upon all institutions founded under the Morrill Act to maintain military

[1] A paper read before a joint meeting of the Association of American Agricultural Colleges and Experiment Stations and the Land-Grant College Engineering Association, at Washington, D. C., Nov. 14, 1913.

instruction, there are really very great differences in the extent to which this obligation is felt or recognized in the different schools.

My purpose in calling attention to these conditions is partly to raise an objection to this lack of uniformity. I think that it is improper that schools which receive the same bounty should requite this bounty in such very different measure.

But the more important part of my purpose is to call attention to a much more serious matter, viz, the wrong mental attitude which most of these schools assume toward military instruction, in the fact that they give as little of it as they think will pass muster. I deplore the loss to the students, and the schools, and the Nation from this faulty conception of what the military provisions of the Morrill Act are capable of accomplishing, if administered with sympathy and wisdom. It seems to me that many of us are not giving a good stewardship of the talent which has been put into our hands. Especially do I desire to convince this body that we as executives of engineering schools are failing seriously to take hold of and make effective use of one of the very best tools in our whole educational kit.

The chief motive for the insertion of the military-drill requirement in the Morrill Act was probably to strengthen our feeble military preparedness by the creation of a body of educated citizen soldiery which in time of war would become an asset of great importance to us. It was evidently inspired by the serious shortage of persons fit to become officers in the Civil War, which was then in progress, and the terrible suffering of our troops, due to the incompetence and inexperience of their officers.

This motive is still the most important one which can be brought forward from the Government's side to justify the expenditure which the military-drill feature of the Morrill Act specifically occasions.

But, while I thoroughly believe in this reason for exacting drill in land-grant colleges, still, from the standpoint of the schools I consider it of secondary importance compared to the intrinsic value of the military drill as an element in the education of any young college graduate. It is for the benefit of the schools themselves, rather than for the improvement of our national military preparedness, that I am urging that the military drill be treated with more seriousness and consideration.

RESPECTS IN WHICH MILITARY INSTRUCTION IS OF VALUE IN A SCHOOL.

Disciplinary value.—Military drill supplies a conception of authority, and respect for authority, which nothing else does or can furnish. It is needed more now than half a century ago, and will be needed increasingly as time goes on. In your administration as deans how many of the young men who come before you for advice

or reproof give evidence of being reared in a well-ordered and well-disciplined home? How many cases come before your notice of young men who are lawless and disobedient at college because they have never been controlled at home? Or worse still, in how many cases, where discipline by the university is inflicted upon a young man for infraction of the rules, do his parents show their incapacity for government by siding with the offender and encourage him in his folly by misplaced sympathy and by appeals for the waiving of the university's regulations in his behalf?

With our colleges full of young men of such undisciplined antecedents, and the proportion of such growing instead of decreasing, the need of a discipline fundamental, vigorous and absolutely impartial, is apparent. No greater kindness can be shown an undisciplined, spoiled boy, whose mother is too weak and whose father is too busy to control him, than to put him under military control, where he learns to obey first and ask why second, and where punctuality, self-control, neatness, and absolute truthfulness are the first requisites. No military discipline can ever give a boy what he ought to get at home, but for the boy who does not get discipline at home the military training is of inestimable worth.

Obedience does not come from precept nor from intellectual conviction solely, or even chiefly. It comes from the knowledge of power and authority; and while intellectual conviction should always be used to its limit in securing obedience, there must always be the shadow of the big stick in the background, whether one deals with savages or boys or college professors. That is why a good military department in any college is invaluable. It is the one branch of college work where authority visibly rests upon its actual source of power.

(2) *Physical advantage.*—Young men who come to college may be divided into two classes—those who are in earnest and those who are not. Happily the first class greatly predominates. But both classes make the same error, though from different reasons. The dig does not want to drill because it takes too much time. He has a convenient chance to get a laboratory section, or something else, and he does not want to quit and put on his uniform, just when an hour more would finish an experiment or complete a problem. The idler, on the other hand, finds that drill interferes with his watching or taking part in the college sports or something else, and hence he would like to be excused.

An hour of brisk marching in the open air, with head up and shoulders square, and with every sense alert, under the inspiring influence of mass action, team work, and military music is a grand finish for the day of a college student, and a grand preface to the evening meal. In college or out, humankind are prone to neglect

the simple laws of health and fail to take exercise. The drill would be worth while ten times over if it did no other thing than to force students to exercise regularly in the open air. One of its great merits is that it catches the very fellow who would not get the exercise except upon compulsion.

(3) *Intellectual benefit.*—As a purely intellectual exercise, military drill is in one respect the equal of any course in college, viz, power of concentration. It keeps a constant demand upon the attention of every man in the company every minute that it lasts. It is memory exercise at first, but as soon as familiarity and practice bring a certain degree of automaticity to the common movements, the nature of the demand changes and the strategical phase of the subject is developed. The handling of troops, even in a simple military ceremony, requires not only concentration but constructive ability, and the moment that the work leaves the field of ceremony and takes up real military maneuvering, such as skirmish drill, outpost duty, etc., the constructive element becomes predominant. No one, officer or private, can acquit himself well in a spirited, snappy drill without giving a high degree of concentration to the task. The more advanced the work becomes the more broad and diversified demand does the work make upon the intelligence of the student.

It may be objected that the real intellectual labor falls upon the officers, indeed upon the one officer in command. It is undoubtedly true that the leader does the most work and gets the most benefit, but in a student organization the procedure differs from the Army, in that every effort is made to vary the leadership and to give the opportunity of leadership to as large a number as possible. The modern formations favor this, for every eighth man is a corporal and responsible for his seven men, and every sergeant has his squad or platoon, etc.

(4) *Development of character.*—The old adage that "no one can properly control others who can not first control himself" is one of these eternal verities which can not be too often driven into the minds of the young college man. Any young engineer looks forward to controlling others. In a sense every young college man does, whether he is an engineer or not, but in law and medicine and agriculture the future direct control of a force of men does not loom up on the horizon as it does to one who expects to play a leading part in the railroad, mine, or factory. But how shall we get this power of leadership? How shall we learn to impose our will upon others and still keep their respect and regard? I believe in the laboratory method in most things, and I believe in it here. To give a young man power to control others, let him first learn how to obey and to take orders from others. Next, give him a minor responsibility to direct others and

coach him on his faults when he begins. Give him increasing chances to command as fast as he develops ability to use power.

The military organization in a large college offers an ideal method of giving just exactly this opportunity. In a college regiment the size of the companies is usually cut down materially, and the number of officers can be increased considerably over the statutory proportion without diminishing the prestige of the officers' position to any degree. In this way large numbers of the men get the experience of commanding troops—in fact, every one who develops the least facility or promise in that direction. A young man who can not develop leadership in a military organization is a young man whose attributes for an engineer need investigation.

Another factor in leadership is the ability to read character. No better place exists in the world to practice this art than in the selection of men for office. Every company captain must study his men, and in making his selections for promotion, under the watchful care of his superior officer, he himself takes a most important lesson.

Another factor in character building is the high standard of personal honor which must go with any effective military control. A soldier is taught a very simple but a very severe code of behavior. He must tell the truth and hate a lie. He must enforce respect for his own rights and must show equal respect for the rights of others. As he wears the uniform of his organization he must be a gentleman first, last, and all the time, or he will disgrace his friends as well as himself. He must love his country and serve it with a single mind, even to death. Not a bad platform for a young college man to learn, is it?

(5) *Technical training of engineering value.*—Every intelligent man knows that the losses in the wars of the past have been chiefly caused by disease—that those actually killed or incapacitated by wounds are only a small percentage of the whole. Every one knows, or should know, that the life of an army officer is very largely spent in taking care of the physique, strength, and health of his men. For a few moments or a few hours of his life he may be in battle, where a bullet, or a shell, or a poisoned arrow may rudely interrupt his career, but more than 99 per cent of his life is spent in getting ready and keeping ready for this crucial moment. His task is to live right, to conserve and develop his own physical powers in order to set a good example, and to be able to see that his men do the same. It involves knowledge of the elements of dietetics, the use of water for drinking, the care of one's own person, keeping clean, keeping a whole skin, and treating wounds and minor injuries. It involves the much more difficult task of seeing that others who do not know or comprehend the danger or who lack the self-control to suffer privation are not allowed to take direct sanitary risks.

Every manufacturing or engineering enterprise is like an army in the fact that its effectiveness is dependent on the physical effectiveness of its men. And how often on the frontiers in industry, as on the frontiers in war, does the success of an enterprise depend on the ability of the engineer or superintendent to make his men live as they should. How many of our railroad camps, drainage camps, highway camps, and factories are decimated by typhoid, cholera, diphtheria, yellow fever, tuberculosis, syphilis, etc., while work is delayed or stopped, and time, money, and life are lost because the engineer in charge did not know that it was his business to protect his men from sickness as well as from accident?

There is no other school so effective in such matters as a well-managed camp, where every detail of the sanitation is carefully planned and executed and where the art of feeding, housing, policing, and keeping a body of men well in spite of unusual conditions of life is taught by practice as well as precept. Every engineer ought to have the advantage of such an experience as a fundamental part of his education.

But besides sanitation and care of men, military science has many other useful lessons. Military procedure is really engineering. Every military enterprise, from the transportation of supplies, the bridging of streams, the mapping of the country, the making of roads, the making of guns and weapons, the construction of forts and armaments, the science of ballistics, and every other unenumerated branch of the subject is nothing more than the application of the methods of engineering to the art of warfare. Engineering is, therefore, very properly the backbone in the instruction given in every military school in the world.

The engineering schools ought to try to avail themselves of that part of military engineering experience which is applicable to the peaceful arts of commerce and manufacture. No right-minded man will deny to the soldier the credit for what he has done to make the world more civilized, more orderly, more healthful, more habitable. Shall we not take from his experience that part which we need in our daily affairs?

WAYS IN WHICH THE SCHOOL CAN MAKE THE MILITARY WORK EFFECTIVE.

If there is anything in these ideas as to the ways in which a military department can be of service to a school, or even in any one of them, then it would seem that it would be worth while to seriously examine ourselves and see if we are doing what we can and what we ought to make use of this force.

I do not wish to minimize the work that has been accomplished and is being accomplished by the military departments of the land-

grant colleges under existing conditions. To my mind they deserve, in most places, the very highest praise for doing so well with so much indifference to overcome and often in the face of veiled hostility. The colleges can certainly do a good deal to make the military work more successful.

(1) *Backing up discipline.*—The college owes no more important duty to the military department than to strongly support the discipline which the latter seeks to enforce. The drill may be short and infrequent, but while it lasts it must be rigidly administered if it is to do any good. Too often the faculty has been guilty of actually subverting discipline by winking at infractions of the rules, graduating men in spite of shortage of military credits, allowing students to cut drill in favor of some technical duty, etc.

(2) *Academic credit.*—Another thing is to acknowledge the educational value of military training as the equal of any other subject in academic weighting. If a subject is put upon a student's class card as a requirement, with no other credit than a penalty for failure to perform it, that subject is certain to be viewed by the student as an exaction to be gotten through, but by no means to be taken seriously. It is discounted in advance. If the college treats the military department with respect and consideration, the student will in time adopt the same attitude, but not otherwise.

(3) *Military courtesy.*—Another way to dignify the military work is for the faculty to observe generally and punctiliously the little formalities and courtesies which a military organization makes possible. If the faculty recognizes salutes and gives them to military officers, the value of the office is enhanced and discipline is strengthened. The whole tone of a school and the relations of professors and students in class and out can be greatly improved by the faculty taking the slight trouble to maintain in their work and contact with students a little of the formal courtesy which is required by the military department in its own internal relations as a matter of course.

(4) *Time allowance.*—Another thing which can be done to help the military work along is to grant sufficient time to the subject, so that the course can be made to include some of its interesting phases and not be confined to a mere repetition of the manual of arms and company formation. Military science, like any other college work, should be so taught that the student can see his own progress, and also see that there is much more to know than he will get a chance to learn. Any active-minded group of college boys can learn the ordinary drill in a very short time if they have the faintest interest in it. The fact that they sometimes accomplish so little is because they have so little interest in it, and receive no intimation from the faculty that they are expected to feel otherwise. If the instruction

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[illegible]—another and very important thing [illegible] the available teaching force. No [illegible] allowed one professor of mathematics to [illegible] would I think that it had done [illegible] the mathematics department [illegible] ever-changing corps [illegible] the freshmen and [illegible] could be so taught, but [illegible] that is exactly [illegible] preparatory departments. [illegible] to be able to [illegible] knowledge, regard- [illegible] of a brigade to

[illegible] to do away [illegible] opportunity to [illegible] part of the [illegible] as well as the [illegible] of a [illegible] in [illegible] should [illegible] where [illegible] and [illegible] might be assigned [illegible] work of these men would [illegible] they took their duties seriously [illegible] the task of building up their work. [illegible], art of war, and advanced instruction [illegible]. It may be objected that the number of [illegible] the law of 1893, under which Army officers [illegible] does not permit doubling the detail of officers upon [illegible] allowances at one school, except by depriving some [illegible] of any officer at all. This, unfortunately, is the situation at present, but is a matter that can be remedied. The law has been amended twice to increase the number of officers available and may be amended again to provide the number that modern conditions need.

Meanwhile, there is nothing whatever in the Morrill Act which requires that the land grant colleges shall depend only upon Army officers to give the instruction in military tactics which the law

prescribes. They may, if they so desire, go out and secure as military instructors anyone whom they can find who knows the subject, whether retired Army officer, militia officer, or civilian. Since the War Department does furnish one officer free of charge to the college, the temptation is very natural to assume that the Government's duty is to supply more when needed, and therefore to limit the training to what the one officer is capable of doing until the Government sends more. But I contend that this is radically wrong in principle and in practice, and that there is no reason why the college should feel absolved from further responsibility in the matter of providing more instruction when needed. If the War Department withdrew all officers, the schools would still have to provide military instruction just the same.

THE NEEDS OF THE COUNTRY AND THE COLLEGES ARE IDENTICAL.

My next thesis is that it is just as important, or more so, to the country at large and the War Department in particular, that the military work of our land-grant colleges be strengthened as it is to the colleges themselves. The officials of the War Department look at the provisions of the Morrill Act and the acts of 1890 and 1908 as being intended to remedy the terrible shortage of officers felt in the Civil War and later in the Spanish War. In view of the very small number of graduates of land-grant schools who go into the Army or even into the militia, and in view of the inability of the War Department to keep track of these graduates or to have any kind of hold upon them in event of war, these officials can not see where all the millions that have been poured into these schools have thus far done anything in particular to improve the military preparedness of the country. They partly overlook the very wide dissemination over the country of educated men who have had some military knowledge and experience and who would flock to the colors in time of need; but their dissatisfaction and unwillingness to place their trust on such an intangible military asset is entirely natural. It simply means, in event of a sudden expansion of the Army in war time, that we shall have a recurrence of the conditions of the Civil War, except that we now have a populace somewhat better trained in military science from which to select.

With the War Department looking at our work in this light, we can not expect the Government to give us more help unless we can show very clearly that our inefficiency from the military standpoint is not wholly our own fault, and that we desire to rectify the situation, and that we can not do so without further assistance and cooperation.

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...*the private military schools.*—West Point for a long
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standing Army. Every year a considerable number of vacancies are filled with fairly efficient graduates of private military schools, a very few graduates from land-grant colleges, and some from civil life with a minimum of fitness or efficiency. A few officers are also secured from the rank and file of the Army, after passing rigid examinations. All combined, these sources are barely able to supply the needs of our small standing Army, and would, therefore, not be able to make much of a showing in providing officers for a reserve or a volunteer army.

The McKellar proposition.—There is now pending before Congress a bill (H. R. 8661) to establish and maintain military training schools in the several States and the District of Columbia. These schools must have not less than 300 students per annum. They will be given a Federal appropriation of $80,000 per annum and a State appropriation of $40,000. The total Federal appropriation contemplated is $3,920,000 per annum. To teach military science in these 49 schools on a plane of efficiency comparable with West Point, or even the better grade of private military schools, would require from three to six Army officers per school, exclusive of the instructors for civil subjects. This would require from 150 to 200 officers at the least, which would add $500,000 to the cost of the plan. The Secretary of War has refused to approve this bill and has urged that such a sum of money should rather be used to establish a paid reserve.

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The land-grant colleges.—The Government is paying out per annum, under the act of 1890 and the Nelson amendment of 1908, the sum of $2,400,000, and the land-grant colleges are also receiving many millions more from the fruits of the original Morrill Act, which sums are not now a tax upon the Government's resources. This great sum of money goes to a large group of land-grant colleges which are required to teach military science as a condition of their existence. They are doing so in such a perfunctory and spiritless way that the War Department can see little practical return, so far as military preparedness is concerned. The Secretary of War, in a recent report to a congressional committee, says:

> In this connection it may not be improper to invite your attention to the fact that there is now and has been for many years in each of the several States an agricultural and mechanical college aided by the Federal Government, where the law requires that military education be given with a view to training young men to act as subalterns of volunteers. These colleges were created by the Morrill Act of 1862 and were further endowed and supported by the second Morrill, the Nelson, and subsequent acts. By these acts Congress sought to prevent in the future the serious shortage of the Civil War in officers and provided liberally in funds for this purpose, and yet, in spite of the earnest endeavors of the War Department, extending over a period of years, the purpose of Congress has been largely defeated, while at the same time its appropriations have been used. This is due to the failure of the acts to be specific in stating what shall be done and the failure to provide a penalty for the institutions not carrying out the purpose of the acts.

THE LOGIC OF THE SITUATION.

[illegible] stand out clearly. The first is that it is [illegible] Government, instead of embarking upon new [illegible] like the McKellar bill, to take hold of its [illegible] and make it go, and the second is that it is ob[illegible] the land-grant colleges to wake up to this part [illegible] the Government, and, besides removing all [illegible] making which stand in the way, to set them[illegible] to make some actual military output of a quality [illegible] Government can recognize and use.

[illegible] Government nor the colleges operating separately [illegible] succeed in this matter. It is a matter for cooperation. [illegible] organization for doing what is needed, already. No new [illegible] needed. With a few simple changes, the whole system can be [illegible] work successfully and economically to the great saving of the [illegible] in its quest for more officers, and to the much greater [illegible] of the colleges.

Here are the things which ought to be done:

First. Pass an act defining a reasonable minimum of military [illegible] which every land-grant college would have to maintain, [illegible] minimum to include:

(a) Not less than two years of military drill for all students except [illegible] exempted for cause.

(b) Not less than three separate periods per week under military [illegible] with not less than one hour per period.

(c) The discipline during military drill periods to be strict, with [illegible] subordination punishable by suspension from college.

(d) The instruction to comprise drill in manual of arms, squad, company, battalion, and regimental drills, military ceremonies, target practice, skirmish drill, outpost duty, and not less than one week of camp per year, and classroom instruction in tactics and in the care of men and sanitation of camps and the military needs and policies of the country.

Second. Pass an act requiring the frequent examination of the efficiency of this work by the War Department, with power not only to withdraw their officers from the school failing to maintain proper standards, but also to enjoin further payments under the act of 1890 and the Nelson amendment until the case of the college in question had been brought for adjudication before some authority designated by the President.

Third. Amend the act of 1893 which limits the number of Army officers who may be detailed to educational institutions to 100, so as to make it possible to detail one active or retired officer under full pay and allowances for each 400 students under military discipline.

Fourth. Pass an act requiring all land-grant schools to which two or more officers are detailed to provide a four-year course in military engineering, said courses to include, beside the fundamentals of a good engineering education, four years of military drill and instruction in such courses in advanced military subjects as the Secretary of War may prescribe.

Fifth. Pass an act permitting the Secretary of War to appoint all graduates of such military engineering courses as second lieutenants in the Army for a period of one year following their graduation, with full pay and allowances, at the end of which time their appointment may become permanent, if vacancies exist, or they may go into civil life, retaining their commissions as officers of the reserve.

Sixth. Encourage the respective States to pass laws connecting cadet regiments in the land-grant schools with the National Guard of those States, in the same general relation that the United States Military Academy bears to the United States Army, to the end that the military equipment now furnished to the National Guard by the War Department may be available to the cadet regiments as well, and that the officers now detailed in the several States to inspect and instruct the militia may be available for similar purposes for the cadet regiments, and also to the end that the students who do not graduate in the proposed military engineering course but who take an interest in military affairs may be more readily absorbed into and become a part of the militia of the States upon leaving college.

This sixth item is really of very great importance, for the reason that the Army officers now detailed to the militia could, without any additional expense to the War Department, do a large part of the work proposed in the other parts of this scheme, and because the Artillery, Cavalry, Signal Corps, hospital and camp equipment now in the State arsenals could be made vastly more efficient and useful than it now is without decreasing its value for the present purposes in any way. In short, the War Department has now in the various States officers and equipment enough to carry out the major part of the above plan without additional cost.

CONCLUSION.

The duty of the land-grant college engineering organization seems to me perfectly clear. It can not by its own legislation bring any of these things to pass. It can appoint a committee on military education to study the whole subject and to find out how far their respective land-grant schools would care to cooperate toward the attainment of these ends, and after conference with the War Department to prepare legislation for submission to Congress and to State legislatures.